



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

JUL 11 2011

MEMORANDUM

OFFICE OF
WATER

SUBJECT: Underground Injection Control Program - Aquifer Exemptions - New Regional Reporting Process

FROM: Ann Codrington,
Acting Director, Drinking Water Protection Division
Office of Ground Water and Drinking Water

TO: Regional Underground Injection Control (UIC) Branch Chiefs, Regions I - X

At the recent Regional Water Management Division Directors meeting, senior managers discussed the need for national consistency of information related to aquifer exemptions provided at 40 CFR 146.4. To improve our ability to track where aquifer exemptions have been granted, I am writing to request that Regions make information on previously approved aquifer exemptions available so that the program can develop a national summary of aquifer exemptions nationwide.

Why Is Gathering this Information Critical Now?

With increasing shortages of drinking water in portions of the United States, utilities are now using more advanced extraction and treatment technologies to obtain water thought unobtainable or unsuitable when EPA initially developed regulations for aquifer exemptions in the early 1980s. In addition to being responsible for maintaining a record of all aquifer exemptions, the Drinking Water Program needs to more clearly understand which portions of aquifers are now not available because of aquifer exemptions being approved under the UIC Program.

With complete data we can better understand what aquifers in a given geographic area continue to be protected under the Safe Drinking Water Act, standardize the use of aquifer exemptions, create GIS maps of the exempted areas, and conduct other analyses for managing UIC wells and protecting underground sources of drinking water. Also, as communities turn to alternative sources of drinking water, EPA will be able to make available to the public information that describes the nature and quality of exempted aquifers. This information is also valuable for those purchasing land or for making choices about where to live.



Request for Regions to Submit the Data

The Program has gathered aquifer exemption data in the past, and as a result, critical information was collected from more than half of the Regions and associated States (Appendix B describes the status of these data) and is now available to the program.

We would like to complete the task of compiling aquifer exemption data by requesting that Regions submit the remaining information (records of aquifer exemptions not already codified in Part 147) by no later than August 31, 2011. This information includes owner/operator information, locational data, geology, injectate characteristics, and exemption information.

If this information has been archived, the Region should identify the location of the archive and attempt to gather that information. If no such records exist for known aquifer exemptions, we ask that each Region provide any information it does have for the exemptions. We will work with Regions to establish an approach to obtaining information on future approved aquifer exemptions.

Regions should provide information on currently approved aquifer exemptions using the format provided in Appendix A, and we have attached an Excel file to facilitate the process. Please send your information to Robert (Bob) E. Smith at his electronic mail address: Smith.Robert-eu@epa.gov.

If you have any questions, please contact me or have your staff contact Robert E. Smith at Smith.Robert-eu@epa.gov (202-564-3895).

Appendix B

Previous HQ Requests for One-Time Reports from Regions

In 2003, Headquarters launched a national aquifer exemption data initiative to inventory all current and existing aquifer exemptions that were approved by a delegated State and/or federal UIC program. In 2005, the project was concluded and the results were reported to HQ management. Critical information about the locations, associated injection well practices and project dimensions (size and boundary) was ascertained by more than half of the Regions and associated States and was entered into a database.

Since 2005, efforts to collect aquifer exemption information have been made in preparation for several UIC National Manager Meeting discussions. In 2008 and 2010, additional attempts (e.g., questionnaire and e-mails) have been initiated to survey the Regions for aquifer exemption data in support of the proposed and recently finalized UIC Class VI geologic sequestration (GS) rulemaking. Based on these past efforts to inventory and locate aquifer exemptions nationwide, HQ has concluded that some aquifer exemption records being maintained by the Regions are lacking.

A summary of aquifer exemption information we have resulting from those requests and pulled from 40 CFR Part 147 is provided below:

- In 40 CFR Part 147, aquifer exemption data are very limited and inconsistently reported. There are eight DI programs (States and Tribes) with 210 aquifer exemptions listed. Of these eight programs, three listed geologic/hydrologic unit names and/or field names while another three programs did not, stating in the CFR that the list of aquifer exemptions can be found at the respective Regions. Finally, two remaining DI programs (Tribes) reported field and location data in township, section and range.
- In addition, HQ has copies of some decision letters sent by Regions 4 and 8 to their States and owners or operators from 1980 through 2011 that cover aquifer exemptions that are not in Part 147.
- In December 2005, HQ completed a survey of the Regions and States with aquifer exemptions. HQ produced a table entitled, Aquifer Exemption Data Initiative for All Classes of Wells – Summary Matrix Report of State Data, which reported 347 aquifer exemptions across all States and Tribes. This is only a summary of the detailed data reported from the States and Regions that also covers the data in Part 147.
- In 2008, HQ completed another survey of the Regions, which resulted in the reporting of a total of 883 aquifer exemptions. This survey includes all the aquifer exemptions reported in Part 147 as well as those not reported in Part 147.

Appendix A Aquifer Exemption Notification Matrix

Basic Information				Location, delineation and Depths		Geology and Injectate Characteristics			Exemption Type, Criteria Cited and Approval Dates		
A	B	C	D	E	F	G	H	I	J	K	L

Matrix Legend

Basic Information

- Name of Owner or Operator and Address (A)
- Company and Business Type (B)
- Injection Well ID # or Area Permit # (C)
- UIC Well Classification and Injection Activity (D)

Location, Delineation and Depths

- Aquifer Exemption Location (Lat/Long and or Township, Section and Range) (E)
- Aquifer Exemption Delineation (Areal Extent, Project boundary and Depths) (F)

Geology and Injectate Characteristics

- Well Depths, Subsurface Formation Names (Injection Zone and Confining Zones) (G)
- Injection Zone Hydrology parameters (Formation Depth, Thickness, Lithology and Water Quality) (H)
- Injectate Characteristics (I)

Exemption Type, Criteria Cited, Approval Dates

- Type Program Revision for Exemption (Substantial or Non-Substantial) (j)
- Approval Dates (State Recommendations and Regional Approval or Concurrence (K))
- Criteria Cited (e.g., 40 CFR 146 (a) through (c)). Note: Under 146 (c), please check on the validity of the 45 day clock of automatic approval at § 145.32 and 144.7 (b)(3) (L)